IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Abraham L. Zeigler et al.	Art Unit	: 3691
Serial No.	: 09/401,875	Examiner	: Campen, Kelly Scaggs
Filed	: September 23, 1999	Conf. No.	: 5266
Title	: MONTAGE FOR AUTOMATED MARKET SYSTEM		

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REQUEST FOR RECONSIDERATION
OF BOARD'S DECISION DATED JULY 22, 2010

Appellant respectfully requests reconsideration of the Board of Patent Appeals and Interferences Decision on Appeal dated July 22, 2010, under 37 C.F.R. 41.50(b) (2). Appellant believes the Board misapprehended or overlooked the following points in rendering their decision.

The rejection of Claims 1-23 under 35 U.S.C. 102(b) as being anticipated by Gutterman et al. (WO 91/14231).

Claim 1

The Board in rendering its decision misapprehends the features of claim 1.

The standard by which the Board's findings must be supported is substantial evidence. *In re Kotzab*, 127 F.3d 1365, 1369 (Fed. Cir. 2000). "Substantial evidence is something less than the weight of the evidence but more than a mere scintilla of evidence." "[I]f a reasonable mind might accept the evidence as adequate to support the factual conclusions drawn by the Board, then we must uphold the Board's determination." "Substantial evidence" requirement derives from APA. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Claim 1 requires the features of "receiving from a market participant, additional aggregate quotes ... that are displayable as trading interest in a security, but not being attributable to any market participant. Gutterman does not anticipate at least this feature of claim

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1. Appellant's understanding of the Board's decision is that, in essence, Gutterman does not describe this feature, but the maintains the anticipation rejection based on their reading of authorities that have addressed so called "descriptive material."

Claim 1 requires a novel step in a method of managing quotes of: "receiving by the server computer system from client systems ... additional aggregate quotes ... being quotes that are displayable on displays of client systems, as trading interest in a security, but not being attributable to any market participant." The Board has not given these features any patentable weight analogizing the features to, e.g., a song.

Unlike a song, which does not affect operation of a machine, here in the process of managing quotes, the server system must be capable of identifying these types of received quotes as displayable, non-attributable interest. Therefore, the instructions implicit in computer programs operating on the claimed server computers must be different in at least this respect from analogous instructions in computer programs of Gutterman, which does not describe this type of quote. Exactly how the server manages these quotes is not required to be recited when the only cited reference does not describe the critical feature *per se*.

<u>The Board improperly ignored this feature.</u>

Notwithstanding that the Gutterman demonstratively does not teach the claimed feature, the Board reaches its conclusion on anticipation based on an improper reading of the law regarding non-functional descriptive material. The Board stated:

> That "aggregate quotes" refer to a content of information is evidenced by the fact that the Specification exemplifies an aggregate quote as a number (see p. 9,ll. 12-29, e.g., "3,000"). In our view, such an alleged distinction - that the Appellants have drawn their claimed invention to "aggregate quotes" and not to some other type information - is not patentably consequential. It is a distinction based on the descriptive material being received and displayed." Appellant contends that all of the

**features must be given patentable weight when those features affect the
underlying nature of the claims.** [1]

First, the Board did not make any findings pertaining to why they considered "receiving
by the server computer system from client systems ... additional aggregate quotes ... being
quotes that are displayable on displays of client systems, as trading interest in a security, but not
being attributable to any market participant," as non-functional descriptive material, thus
violating the substantial evidence rule.[2]

The examiner likewise did not make any findings of fact. The examiner merely stated a
conclusion. However, the examiner's conclusory reasoning[3] is at odds with the Board's view of
the reference, which does not appear to agree with the examiner that Gutterman teaches the claim
feature, but instead is based on the Board's view[4] that they can ignore the claimed feature.

Second, the cases relied on by the Board either do not support the reasoning of the Board,
as applied to these claims, or are distinguishable on their facts. The feature of "receiving by the
server computer system from client systems ... additional aggregate quotes ... being quotes that
are displayable on displays of client systems, as trading interest in a security, but not being
attributable to any market participant," is directed to <u>functional</u> material, as in *Lowry*.

Turning first to *Ngai*, relied on by the Board, *Ngai* dealt with a kit requiring instructions
and a buffer agent. The Federal Circuit held that the claim was anticipated by a prior art
reference that taught a kit that included instructions and a buffer agent, even though the content
of the instructions differed.

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[1] Decision p. 8.
[2] As for formal findings the Board stated: "On the anticipation question, we adopt all of the Examiner's findings as
our own. Ans. 5-9. Additional findings of fact may appear in the Analysis that follows. Decision p. 3.
[3] Specifically as to claim 1, Gutterman et al. disclose a method, executed in a computer server system of an
electronic market, for managing quotes for a security, the method comprising:
receiving by the server computer system from client systems used by market participants, additional aggregate
quotes, the additional aggregate quotes having a size value with the additional aggregate quotes being quotes that are
displayable on displays of client systems, as trading interest in a security, but not being attributable to any market
participant (see page 1, paragraphs 1 and 3; page 6, paragraphs 3 through page 7 paragraph 4 and page 9 paragraph 5
through paragraph 2 on page 11, and pages 14-16)
[4] Patentable weight need not be given to descriptive material absent a functional relationship between the descriptive
material and the substrate (here the computer system and/or display). Decision p. 6.

Ex Parte Curry dealt with "wellness-related services." In *Curry* the Board held that the claims would have been obvious, even though the specific wellness-related data were not taught or suggested by the cited prior art. According to the Board, "the 'wellness-related data in the databases . . . does not functionally change either the data storage system or communication system used in the method of claim 81."

Neither case applies to the present claims. *Ngai* is distinguishable from the present application because unlike the kit in Ngai, claim 1 requires "receiving by the server computer system from client systems ... additional aggregate quotes ... ." in the context of a computer implemented method. Unlike the present application, the instructions in *Ngai* did not affect any of the structures embodied by the claims nor was the kit directed to a computer system or the like.

Curry is while closer, since it relates to computer implemented methods, is also distinguishable because unlike the situation where wellness data is the distinguishing feature, in the instant claims the feature of the "additional aggregate quotes ... being quotes that are displayable on displays of client systems, as trading interest in a security, but not being attributable to any market participant "impose a require on the claimed managing by the server of insuring that the quotes are displayed, as in Gutterman, <u>but not displayed with any attribution,</u> which is clearly not taught by Gutterman. This provides a significant advantage to the market by presenting depth to the market, improving market liquidity and transparency while minimizing disclosure of identity of trading interest which should encourage greater quote and order display.[5]

The Federal Circuit in *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) also relied on by the Board, set forth guidelines to be applied by the patent office in evaluating of descriptive material generally, and in particular to claims directed to data structures. The Federal Circuit noted that: "Lowry <u>disclosed</u> a data structure accessible by many different application programs. Lowry's data structure was based upon the 'Attributive data model.' The Attributive

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[5] Appellant's specification p. 2.

data model represents complex information in terms of attributes and relationships between attributes." *Lowry* F.3d at **1582.**

In reversing a printed matter rejection from the Board, based on Gulack,[6] the Federal Circuit stated:

> More than mere abstraction, the data structures are specific electrical or magnetic *1584 structural elements in a memory. According to Lowry, the data structures provide tangible benefits: data stored in accordance with the claimed data structures are more easily accessed, stored, and erased. Lowry further notes that, unlike prior art data structures, Lowry's data structures simultaneously represent complex data accurately and enable powerful nested operations. In short, Lowry's data structures are physical entities that provide increased efficiency in computer operation. They are not analogous to printed matter. The Board is not at liberty to ignore such limitations.

As in *Lowry*, the features of claim 1 are not akin to printed matter or an abstraction or mere descriptive material at least because the function of the feature "receiving by the server computer system from client systems … additional aggregate quotes … being quotes that are displayable on displays of client systems, as trading interest in a security, but not being attributable to any market participant "imposes a requirement, through novel computer instructions in the server not described by or inherent in Gutterman, on managing of quotes by the server. Thus, under *Lowry*, the Board is not at liberty to ignore these limitations.

The nature of the material received in Claim 1, namely, "quotes that are displayable on displays of client systems, as trading interest in a security, but not being attributable to any market participant "is different from what Gutterman teaches.

The Board concluded that: "In that regard, the Appellants have not come forward with evidence sufficient to show that the structure of the computer and/or display are functionally

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[6] *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983). In *Lowry*, the Federal Circuit questioned the applicability of printed matter type of rejections to computer related inventions.

affected by them providing, specifically, 'aggregate quotes.'"[7]   The presence of a functional relationship is expressed stated in claim 1, but has been overlooked by the Board in rendering its decision.

Unlike the situation of a merely storing in digital form, a song which clearly has no functional content per se, here claim 1 in a claim directed to managing received quotes in an electronic market has imposed upon the server feature of the claim, a functional limitation from the received quotes to insure that the particular types of received quotes are displayable on displays of client systems, but not attributable to any market participant. The novel computer instructions therefore implicit in such a computer implemented method would need to consider the format by which these quotes are received to determine whether such novel restrictions were imposed on the quote during management of the quotes by the server.

Therefore, the skilled person would consult Appellant's specification to properly construe the claimed feature and would find in FIG. 2 and FIG. 7, the existence of such instructions and an entry format for quotes that provided a functional relationship to the claimed quote management. So, while not importing these limitations into the claim, it would be evident, when the claims are properly construed by reference to the Appellant's Specification, that there were functional differences among the three different types of quotes that would need to be taken into consideration by a server computer system that was managing the quotes.

Claim 2

Claim 2 requires the feature: "receiving, by the server computer system, quotes from client systems used by market participants that are displayable quotes and attributable to corresponding ones of the market participants." For claim 2, the Board relied on their reasoning regarding claim 1. However, as with claim 1, the Board improperly construed this feature.

Claim 2 imposes upon the claimed method of managing quotes an additional functional constraint, namely, to insure that these types of received quotes are displayable on displays of client systems, and are displayed with attribution to the particular market participant. The novel

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[7] Decision p. 7

computer instructions therefore implicit in such a computer implemented method of 2 would need to consider the format by which these quotes are received to determine whether or not the novel restrictions were imposed on the quotes during management of the quotes by the server.

Claim 3

Claim 3 requires the feature: "receiving, by the server computer system, quotes from client systems that are reserve quotes, which are neither displayable quotes nor attributable to market participants, but are available as trading liquidity in the security." For claim 3, the Board relied on their reasoning regarding claim 1.

However, as with claim 1, the Board improperly construed this feature. Claim 3 imposes upon the claimed method of managing quotes an additional functional constraint, namely, to insure that these types of received quotes are neither displayed nor attributed to a market participant. The novel computer instructions therefore implicit in such a computer implemented method of would need to consider the format by which these quotes are received to determine whether or not the novel restrictions were imposed on the quotes during management of the quotes by the server.

Claims 4-7

The Board stated: "The Appellants argue claims 4-7 as a group (App. Br. 18). We select claim 4 as the representative claim for this group, and the remaining claims 5-7 stand or fall with claim 4. 37 C.F.R. 41.37(c)(l)(vii) (2007)." 37 C.F.R. 41.37(c)(l)(vii) (2006), which was in effect at the time the brief was filed, stated in pertinent part:

> *** Each ground of rejection must be treated under a separate heading. For each ground of rejection applying to two or more claims, the claims may be argued separately or as a group. When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone. ***

The Board overlooked in their reading of Appellant's brief that <u>Appellant did not argue claims 4-7</u> as a group. Instead, Appellant stated that "<u>Each of the claims in this group defines distinct subject matter over Gutterman</u>"[8] and Appellant presented individual arguments for claims 4, 5 and 7.

37 C.F.R. 41.37(c)(l)(vii) (2006), states that the claims may be argued separately or as a group and <u>when argued as a group</u> the Board may select a single claim. Appellant did not argue these claims as a group, Appellant merely grouped four claims that shared a common rejection together, but argued those claims individually. Having not argued the claims as a group, the Board's decision to select only claim 4 was improper. Therefore Appellant presents below substantive arguments on reconsideration of claims 4, 5 and 7.

<u>Claim 4</u>

Claim 4 requires the feature: "determining, by the server computer system, total aggregate quote sizes of displayable quotes received from market participants." For claim 4, the Board relied on their reasoning regarding claim 1. However, as with claim 1, the Board improperly construed this feature.

Claim 4 imposes upon the claimed method of claim 2, of managing quotes an additional functional constraint, namely, to aggregate both types of received quotes attributable and non-attributable. The novel computer instructions therefore implicit in such a computer implemented method of would need to consider the format by which these quotes are received to determine whether or not the novel restrictions were imposed on the quotes during management of the quotes by the server and have the aggregate numbers reflect these totals, whereas the display of the quotes would only have those quotes that are attributable.

<u>Claim 5</u>

Claim 5 further includes "determining the total aggregate quote sizes by adding received quotes and additional aggregate quotes received for the security at corresponding price levels to

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[8] Brief on Appeal, p. 18, line 19.

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provide the total aggregate quote sizes at each of the corresponding price levels and displaying the attributable quotes in an advertisement portion of a quote montage."

The Board did not present any reasoning for this claim apart from its reliance on claim 4, which as Appellant pointed out above, overlooked Appellant's clear statement that the claims were *argued* individually and not as a group. Therefore, this claim is not anticipated when properly construed for reasons stated in Appellant's briefs.

Claim 7

Claim 7 further limits claim 5 and requires: "displaying the attributable quote in a current quote window and additional aggregate quote in an aggregate window."

The Board did not present any reasoning for this claim apart from its reliance on claim 4, which as Appellant pointed out above, overlooked Appellant's clear statement that the claims are argued individually and not as a group. Therefore, this claim is not anticipated when properly construed for reasons stated in Appellant's briefs.

Claims 8 and 9

Appellant's claim 9 when all of the features are according patentable weight, as argued above distinguishes over Gutterman because the reference does not describe "displaying in a first montage, the quote if it is displayable and displaying in a different portion of the montage the total aggregate quote size."

Gutterman does not include a total aggregate quote size, as that term should be construed by the Board. Gutterman does not describe *if* the quote is displayable, displaying "in a different portion of the montage the total aggregate quote size."

Claim 12

Appellant's claim 12 includes executing additional aggregate quotes and reserve quotes to any balance of the order to execute the balance of the order. Gutterman does not describe these features when properly construed, for reasons given above.

Claims 13, 14, and 17

Appellant's claim 13 is representative of this group. Claim 13 is directed to an electronic market for trading of securities. The market includes a plurality of client stations for entering quotes for securities specifying a price level and a quote size, with the quotes being quotes that are displayable and attributable to a specific market participant or additional aggregate quotes that are displayable but not attributable to a specific market participant. The market also includes a server process that receives the quotes from the clients, aggregates the quotes, and causes totals of aggregate quotes for a plurality of price levels to be displayed on the client systems.

Gutterman does not describe these features when properly construed, for reasons given above.

Claim 15

Claim 15 is directed to an electronic market in which aggregated quotes are "displayed in a graphical user interface that includes an aggregate montage for displaying aggregate quotes at multiple price levels on either side of the market." Gutterman does not describe such a montage.

Gutterman does not describe these features when properly construed, for reasons given above.

Claims 18 and 19

For the purposes of this appeal only, claims 18 and 19 stand or fall together. Appellant's claim 18 is representative of this group of claims.

Appellant's claim 18 is directed to a client station for entering quotes for securities. The client station includes a display rendering a graphical user interface at which quotes can be entered at a price level. The interface includes controls to enter a quote having a size, the quote being displayable and attributable to a specific market participant, a reserve quote, having a size, the reserve quote being neither displayable nor attributable to a specific market participant, and an additional aggregate quote, having a size that is displayable but not attributable to a specific market participant.

Gutterman does not include or suggest the foregoing features and the requirement that the interface includes <u>controls to enter a quote having a size, the quote being displayable and attributable to a specific market participant</u> distinguishes over the arrangement described by Gutterman for reasons given above. In particular the provision of <u>controls to enter</u> a quote that is displayable and attributable to a specific market participant, a reserve quote ... being neither displayable nor attributable ... and an additional aggregate quote, having a size that is displayable but not attributable to a specific market participant imposes a further functional relationship on the claimed station.

<u>Claims 20-23</u>

Claim 20 is directed to a graphical user interface for an electronic market for trading products. The graphical user interface includes an aggregation window which displays additional aggregate quotes for a plurality of price levels of a product traded in the market, the aggregate quotes including quotes that are attributable to market participants and quotes that are displayable quotes but are not attributable to any market participants. Gutterman does not describe these features when properly construed, for reasons given above.

<u>Conclusion</u>

Therefore, reconsideration by the Board of their decision is respectfully requested. No fees are due. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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